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**Department of**  
**Natural Resources**

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December 11, 2006

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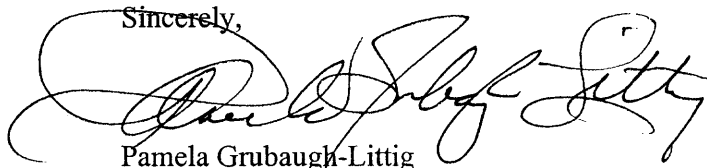
Subject: Final Approval of MRP Rewrite, Task ID #2451, Andalex Resources, Inc.,  
Wildcat Loadout, C/007/0033

Dear Mr. Glasson:

The above-referenced amendment was conditionally approved on May 17, 2006, upon receipt of clean copies. This condition has been met. Enclosed is a stamped incorporated copy for insertion into your copy of the Mining and Reclamation Plan.

Thank you for completing this permitting action. If you have any questions, please feel free to call me at (801) 538-5268.

Sincerely,

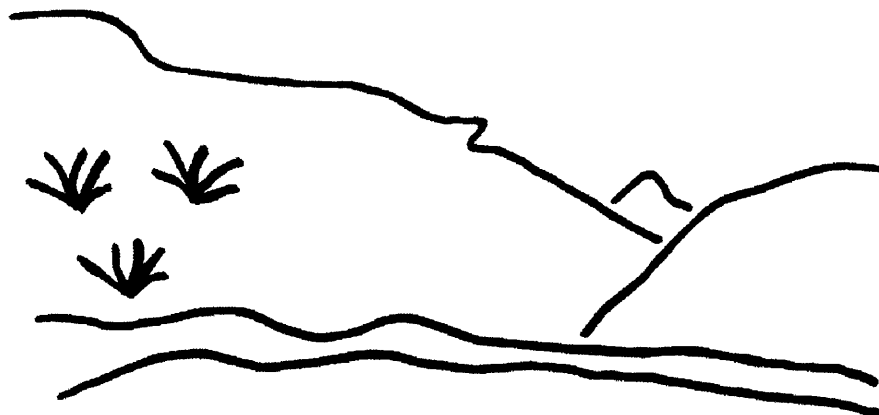


Pamela Grubaugh-Littig  
Permit Supervisor

an  
Enclosure

cc: Dan Guy, w/o  
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O:\007033.WCL\FINAL\FinApp2451.doc

# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Wildcat Loadout  
Andalex Resources, Inc, Tower Division  
C/007/0033  
Technical Analysis  
December 21, 2006

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**TECHNICAL ANALYSIS**

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## **TECHNICAL ANALYSIS**

The Division ensures that coal mining and reclamation operations in the State of Utah are consistent with the Coal Mining Reclamation Act of 1979 (Utah Code Annotated 40-10) and the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87). The Utah R645 Coal Mining Rules are the procedures to implement the Act. The Division reviews each permit or application for permit change, renewal, transfer, assignment, or sale of permit right for conformance to the R645-Coal Mining Rules. The Applicant/Permittee must comply with all the minimum regulatory requirements as established by the R645 Coal Mining Rules.

The regulatory requirements for obtaining a Utah Coal Mining Permit are included in the section headings of the Technical Analysis (TA) for reference. A complete and current copy of the coal rules can be found at <http://ogm.utah.gov>

The TA is organized into section headings following the organization of the R645-Coal Mining Rules. The Division analyzes each section and writes findings to indicate whether or not the application is in compliance with the requirements of that section of the R645-Coal Mining Rules.



## INTRODUCTION

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## INTRODUCTION

The site of the Wildcat Loadout is found on the "Standardville" U.S. Geological Survey 7.5 minute quadrangle map in Township 13 South, Range 9 East, Section 33 (see also Figure 1, Section 2). The site is located three miles west of Highway 6 on the Consumer's Road, within a BLM Right of Way granted in 1992. Andalex has held the permit for the Wildcat Loadout since 1985. The permit area covers 91 acres of which 56.1 acres are disturbed and 12.5 acres are under lease to the Utah Railway by the BLM (Section 2, page 1-2 and Section 4, pg 3-4). Effective May 1994, Exhibit A of the permit describes a bonded area of 63.7 acres.

In 2006, The Division approved Andalex's reorganization of the Wildcat Loadout MRP so that the format more closely matches that of the current R645 Coal Mining Rules. No changes were made to the appendices, figures, or maps with the exception of Plate 13 Topsoil Storage Areas. An important change to the text indicates the facility can now handle 5 million tons per year throughput of coal (Section 2, pg 1-3).

The Division recommends the following changes to the reclamation plan, based upon the results of the test plots conducted to date:

- The graded surface should not be compacted as indicated in the reclamation plan, rather the last lifts should be loosely applied, such that a four foot rooting zone is achieved.
- Test plots indicate that the gouging method is superior to discing for vegetation establishment. The site should be gouged after grading.

R645-301-526.300 requires that the Permittee include in the narrative of the MRP the design specification of specific controls already in place or planned for fugitive dust coming from coal stockpiles, roadways, and other disturbed areas. Such information is currently lacking in the MRP and is being addressed by Division Order.

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Task ID #2451  
December 21, 2006

## **INTRODUCTION**

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**SPECIAL CATEGORIES**

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## **REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING**

### **COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A MINE**

Regulatory Reference: 30 CFR Sec. 785.21, 827; R645-302-110, R645-302-260, et seq.

#### **Analysis:**

As outlined in the subsequent sections of this technical analysis, the application was reviewed under the Utah Rules for Coal Processing Plants Not Located Within the Permit Area of a Mine, R645-302-260. All provisions of R645-300 and R645-301 apply to this category of mining unless otherwise specified under R645-302.

#### **Findings:**

As discussed in this Technical Analysis, the information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

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December 21, 2006

## **SPECIAL CATEGORIES**

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## GENERAL CONTENTS

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# GENERAL CONTENTS

## IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

### Analysis:

The MRP meets the requirements for Identification of Interests because the principal stockholders and officers of the Parent Companies are identified in Section R645-301-112, along with the percentage ownership and addresses and principal shareholders..

The Resident Agent, Michael Glasson, is identified as the Resident Agent for the Wildcat Loadout (C/007/033) in Section R645-301-112.200 page 1-5.

The application indicates in Section 1, p. 1-6 that Andalex Resources Inc. is 100% owned and controlled by Andalex Hungary, Ltd.; Andalex Hungary, Ltd. is owned by Andalex Investments BV; Andalex Investments BV is owned by Misland (Cyprus) Investments Limited and A&A investments Ltd.; and A&A Investments Ltd is owned by the Mitchell Green Family Trust.

Affiliated coal mining operations within the United States are listed in Sec. R645-301-112.320.

Section 1, page 1-5 of the MRP lists present and past corporate personnel of Andalex Resources, Inc.; 45 West 10000 South; Sandy, UT 84070. The employer identification number is provided in Sec. R645-301-112.320.

### Findings:

Information provided in the MRP meets the Identification of Interests requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine

## VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

**Analysis:**

The MRP meets the requirements for violation information because Appendix B provides violation history for the years 2001 – 2005 for Utah Coal Mines held by Andalex Resources, Inc. Tower Division. In addition, the MRP indicates in Section R645-301-113 that neither Andalex Resources, Inc. Tower Division nor its affiliates have had a permit revoked or suspended in the last five years or a bond forfeited.

An Applicant Violator System check on May 4, 2004 (during the permit renewal process) indicated that there were no outstanding NOV's or CO's or any bond forfeitures of sites associated with the Andalex Resources, Inc. Tower Division (permit renewal document dated 5/5/2004, Outgoing 0012.pdf).

**Findings:**

The information provided meets the minimum violation reporting requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine

**RIGHT OF ENTRY**

Regulatory Reference: 30 CFR 778.15; R645-301-114

**Analysis:**

The permit area comprises 100.19 acres, of which 12.5 acres are under a right of way agreement between the Utah Railway and the Bureau of Land Management (p.1-22). The remaining acreage (approximately 87.5 acres) is BLM land utilized under Right of Way agreement (U-48027 and U-52810) authorized by the Federal Land Policy and Management Act of 1976 which has been in effect since 1982 ( p.1-13 and Appendix B).

An Agreement between Andalex Resources, Inc. and Beaver Creek Coal Co. has been in effect since 1988 (Appendix B).

A surface lease agreement with the Utah Railway has been in place since 1981 (Appendix B).

**Findings:**

The information provided meets the requirements of the Right of Entry Regulations for Coal Processing Plants Not Located Within the Permit Area of a Mine.

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## GENERAL CONTENTS

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### LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

#### Analysis:

Lands designated unsuitable are defined in 30 CFR 761.11 as lands within National Parks, Wildlife Refuge Systems, National System of Trails, National Wilderness Preservation System, Wild and Scenic Rivers System, National Recreation Areas, National Forest, National Historic Register of Historic Places, or within 100 ft of a public road (excepting the intersection with a mine haul road); within 300 ft of an occupied dwelling, public park, school, church or any public building; within 100 ft of a cemetery.

Section 2, page 1-13 indicates that the land within the permit area is not unsuitable for due to any of the above reasons. The land is owned by the federal government and managed by the BLM. The land has been historically used for a wash plant and loading facility (page 1-24). The operation is 100 ft distant from the County Road.

The 56.1 acre disturbed area (pg 3-4) for the Wildcat site is shown on Plate 1. The permit area is shown on Figure I-1.

#### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

### PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

#### Analysis:

Andalex Resources, Inc. was issued a permanent program permit for this site on May 5, 1989, which was successively renewed on May 5, 1994 and May 5, 1999 and May 5, 2004. The current permit expires May 5, 2009.

The permit area comprises 91 acres, of which 12.5 acres are under a right of way agreement between the Utah Railway and the BLM (Section 2, pg 1-2). The remaining acreage

(approximately 87.5 acres) is also BLM land, utilized under Right of Way agreements U-48027 and U-52810. Within the permit area, 56.1 acres are disturbed. Of those disturbed acres, 36.1 acres are pre-SMCRA (Section 4, pg 3-4), although no differentiation is made in the application for the reclamation of these lands (Section 2, pg 1-25).

Effective May 1994, Exhibit A of the permit describes a surface disturbance of 63.7 acres.

**Findings:**

Andalex Resources Inc. holds a valid State of Utah mining permit that expires May 5, 2009.

**PUBLIC NOTICE AND COMMENT**

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

**Analysis:**

The Office of Surface Mining determined that this action does not constitute a mining plan revision (letter dated May 24, 2004). The application received on April 8, 2004 is a reorganization of the existing mining and reclamation plan and does not require public notice. Public comment on the permit renewal for the Wildcat Loadout was sought through legal notice in the Sun Advocate during the month of February 2004.

**Findings:**

Public notice is not required for this submittal.

**PERMIT APPLICATION FORMAT AND CONTENTS**

Regulatory Reference: 30 CFR 777.11; R645-301-120.

**Analysis:**

With the exception of Plate 13 (Topsoil Storage Areas), the existing plates remain as the approved plates and all will be converted to electronic format in the future.

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## GENERAL CONTENTS

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The newly formatted MRP refers many of the sections from 301-311 through 301-322, 301-232, and 301-322 through 301-358 to appendices or other section. Consequently, it will be difficult to efficiently read through this MRP during subsequent reviews.

The Permittee has made advances in addressing the request to remove citations. The Permittee agrees that there is still more editing needed to move or copy narrative to correct sections. Addressing the request to provide narrative under each section will be critical for verifying whether the Permittee meets the regulations and processing future amendments.

Acid and Toxic Forming Materials R645-301-731.300 should refer the reader to sampling information found on page 7-4 under R645-301-711.100 rather than R645-301-512.240 (sediment pond information).

The statement on p. 2-9 that the new test plots are located adjacent to topsoil pile F is inaccurate according to Plate 1.

The plan indicates that a detailed cost of reclamation is provided in Appendix 8-1 (p. 2-20), but Appendix 8-1 could not be found. The Division found this information in Section 6, beginning on p. 5-134.

Date of topsoil salvage (1988?), as well as date of topsoil pile F test plot construction and seeding (1993?), should be indicated in the narrative under R645-301-231.400. Clarification is requested in the narrative under R645-301-231.400 as to whether the seed mix for use on test plots given on page 2-23 of the MRP as revised September 17, 1993, was used on the topsoil pile F testplots or whether the seed was a mix of grass and shrubs as described on page 2-4 of the MRP was used as Mr. Collins indicated in his 1997 evaluation of the plots.

Section R645-301-212, pp 2-6 and 2-21, incorrectly identify Appendix D, rather than Appendix N, as the location of spoil plot information.

The plan indicates in Section R645-301-240 that slopes greater than 10% will be staked (pg 2-19). The Division is uncertain as to the purpose of the staking. Will it show where drill seeding will end and hydroseeding begins?

### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

**Analysis:**

The MRP meets the requirements for reporting of technical data, because individuals and firms that contributed to the mining and reclamation plan are listed in Section 2, R645-301-130.

The contents in the technical reports are the same and remain in the appendices of the MRP.

**Findings:**

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

**MAPS AND PLANS**

Regulatory Reference: 30 CFR 777.14; R645-301-140.

**Analysis:**

Biological and cultural maps are the same and remain in the appendices of the MRP or the folder with Plates.

**Findings:**

Information provided in the application is adequate to meet the minimum Maps and Plans section of the General Contents regulations.

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

**PERMIT AREA**

Regulatory Requirements: 30 CFR 783.12; R645-301-521.



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## GENERAL CONTENTS

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### Analysis:

The MRP meets the reporting requirements for permit area, because Sec. 1 indicates that the site is on federal land managed by the BLM. The permit area covers 100.19 acres of which 12.5 acres of land under lease to the Utah Railway by the BLM (Sec.1 p. 1-2) and 60.94 are within the disturbed area boundary. Twenty acres have been disturbed by Andalex and the remaining acreage was either previously disturbed or is within an undisturbed ASCA (Sec. 3 p. 3-4).

Exhibit A Surface Disturbance included in the 1989, 1994 and 2004 Permits which indicates 63.7 acres of disturbance within the bonded area. Sec. R645-301-240, p. 2-22 and Plate 9 indicate 60.94 acres will be reseeded.

### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

### Analysis:

There were no changes to the content of the Historic and Archeological Resources information in the newly formatted MRP (4/06).

### Findings:

Information provided in the MRP meets the Environmental - Historic and Archeological Resource Information requirements of the regulations.

## CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

### Analysis:

Section R645-301-724.400 of the revised MRP contains baseline Climatological Resource Information on seasonal precipitation, temperature, and speed and direction of the prevailing wind. Data are from the Western Regional Climate Center, Reno, Nevada. Table

VII-1, which summarizes monthly temperature and precipitation data from September 1968 to June 2004. Table VII-2 gives “design storm” intensity, duration, and frequency-of-return information. Tables VII-3 and VII-4 give, respectively, wind direction and speed. Wind data are for the period 1992-2002.

**Findings:**

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

**VEGETATION RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.19; R645-301-320.

**Analysis:**

There were no changes to the content of the Vegetation Resources information in the newly formatted MRP (4/06).

**Findings:**

Information provided in the plan meets the Environmental - Vegetation Resource Information requirements of the regulations.

**FISH AND WILDLIFE RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 784.21; R645-301-322.

**Analysis:**

There were no changes to the content of the Fish and Wildlife Resources information in the newly formatted MRP (4/06).

**Findings:**

Information provided in the plan meets the Environmental - Fish and Wildlife Resource Information requirements of the regulations.

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## GENERAL CONTENTS

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### SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

#### Analysis:

Soil Resources are described in Sec. 2 of the MRP. Appendix D contains the Soil Survey information for the site as well as the topsoil mass balance and soil chemistry information. Plate 11 provides a Soil Conservation Service Order III soil survey. Plate 13 summarizes topsoil storage.

The Carbon County soil survey classifies the undisturbed soils in the Wildcat area as Map Unit 52, Hernandez family 3-8% slopes. These deep soils can supply a lot more than six or twelve inches of topsoil.

The Wildcat soil was described twenty years ago by Earl Jensen, retired soil scientist with the NRCS. (The location for his pit is generally given as the intersection of the Gordon Creek road and Utah Railroad.) He classified the soil as fine loamy mixed mesic Ustollic Calciorthids with a map unit name of Abra loam. He indicated that there was 60 inches of available topsoil. He also indicated that there was a layer of calcium carbonate accumulation from 9 – 12 inches and that adjacent soils did not have this layer of accumulation. The Abra loam is an official series name on the NRCS soil survey web site <http://wwwsoils.usda.gov> go into classification and official series descriptions, view by series names. The NRCS changed the classification of this series to fine loamy, superactive, mesic, Ustic Haplocalcid. The “superactive” designation pertains to the ratio of the electrical conductivity and the percent clay. There can be a calcic horizon in the soil.

The 1988 SCS soil survey for Carbon County maps the soils of the site as the Hernandez Series (Map Unit 55) and classifies the soils as fine-loamy, mixed, superactive, mesic Ustic Haplocalcid (similar to the Abra loam, described above). This is a deep soil that is capable of high production if an adequate amount of water is supplied.

Substitute topsoil has also been evaluated in four fill slopes of the site through the use of test plots described in Appendix N. These plots were installed in 1989 (Plate 1) and evaluated by Patrick Collins, PhD, of Mt. Nebo Scientific Research & Consulting in 1991. Mr. Collins reported that the plots were dominated by Russian thistle (*Salsola iberica*) and summer cypress (*Kochia scoparia*) weeds, with the exception of spoil plot B that contained a sizeable community of Western wheatgrass (*Agropyron smithii*) and Indian ricegrass (*Oryzopsis hymenoides*). The plots will be re-evaluated in the summer of 2006.

The Wildcat site currently has a deficit of 32,000 yd<sup>3</sup> of topsoil to achieve the goal of six inches topsoil replacement depth over the 61 acres (Sec. R645-301-224 p. 2-8 and R645-301-240 "Soil Testing and Preparation" p. 2-21). The revegetation test plot areas A – D represent the substitute topsoil available from the whole of the disturbed area (Sec. R645-301-212 p 2-6, and Sec. R645-301-224). At these revegetation sites, the soil was sampled to a depth of 4 ft. (p. 2-20 and 2-21). Thus, when 73,000 yd<sup>3</sup> are moved (Table II) from the areas shown on Plate 1 during grading (Sec. R645-301-212 p 2-6), whatever material winds up on the surface will be suitable for reclamation. Although on page 2-20 and 2-21, the plan indicates that volumes will be calculated to arrive at the needed 32,000 yd<sup>3</sup>. The Division is waiting for the results of the 2006 quantitative information from the revegetation testplots before commenting on this reclamation plan.

Information on file with the Division (2003 Incoming folder) includes an Addendum to Appendix D, a soil survey conducted under the direction of Mr. James Nyenhuis for Mt. Nebo Scientific in March 2003. This amendment was subsequently withdrawn, but the information has been retained in Appendix D, because provides valuable information on substitute topsoils and should be included in the Soils Resource Information regardless of whether the expansion takes place at the site. Primarily, the study substantiates a twenty-four inch soil salvage depth in future expansions and the use of subsoils to cover the coal mine waste at reclamation.

### **Findings:**

The information provided meets the requirements for Environmental Soil Resource information requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## **ALLUVIAL VALLEY FLOORS**

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

### **Analysis:**

#### **Alluvial Valley Floor Determination**

Geology information is found in Section 7. Hydrology is found in Section 8. No new information has been presented.

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## GENERAL CONTENTS

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### **Findings:**

The Division previously determined in the May 5, 1989 Technical Analysis of the Wildcat Loadout that no alluvial valley floors exist within or in close proximity to the proposed permit area.

## **PRIME FARMLAND**

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

### **Analysis:**

There has been no change in the status of prime farmland. Appendix D contains a determination from the Soil Conservation Service in 1988. Although the Carbon County soil survey classifies the undisturbed soils in the Wildcat area as Map Unit 52, Hernandez family 3-8% slopes (a prime farmland soil), there is no water source within the permit area (Section 8).

### **Findings:**

The Division is in agreement with the Soil Conservation Service that there are no important farmlands in the permit area.

## **GEOLOGIC RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

### **Analysis:**

Geologic information appears under R645-301-611.100.

### **Findings:**

Geologic Resource Information in the reformatted MRP is sufficient to meet the requirements of the Coal Mining Rules.

## **HYDROLOGIC RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

**Analysis:**

UMC 783.13 Description of Hydrology and Geology: General Requirements is under 711.100 in the reformatted MRP. The sedimentation and control plan, including impoundments, diversions and water monitoring plans are discussed in the Engineering Chapter 5 under 512.240.

Figure VII-1 shows the general stratigraphy of the central and southern Wasatch Plateau. Figure VII-2 shows the location of the Wildcat Loadout permit and adjacent areas, including Garley Canyon and the Garley Canyon Spring.

Figures showing details of diversion design, the culvert nomograph, pond outlet protection, emergency spillways, ditch configurations, and riprap sizing are in the reformatted MRP. Figures have been renumbered, and page numbers in the Table of Contents now match the page locations of the figures in the plan.

*Alternative Water Supply Information*

The information in UMC 7873.17 Alternative Water Supply Information is in the reformatted MRP under section 727.Sampling and Analysis

Section R645-301-512.240, Impoundments, Water Monitoring Plans is the location for Sampling and Analysis information. The Permittee commits that they and their lab will follow "Standard Methods for the Examination of Water and Wastewater" for all water samples. Baseline Information

Baseline surface-water quality information is described in Appendix J and Appendix M, and Section R645-301-512.240 contains the water-monitoring plan. This site is very dry and most water-quality or -quantity reports indicate "no flow".

**Baseline Cumulative Impact Area Information**

The Division prepared a CHIA in 1989 and there has been no update. The proposed amendment makes no changes that require the CHIA be redone.

**Modeling**

No modeling was done for the Wildcat Loadout MRP.

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## GENERAL CONTENTS

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### **Probable Hydrologic Consequences Determination**

The PHC determination is in Appendix J. The effects of mine operation on surface and ground water are briefly discussed in section R645-301-711.100.

### **Groundwater Monitoring Plan**

Section 731.211 refers to Section 711.100 as the location for the ground-water monitoring plan. Information in 711.100 indicates that drilling on the site confirmed that no ground water is present, so ground water is not monitored for this operation.

### **Surface-Water Monitoring Plan**

Section R645-301-731.211 refers to 512.240 as the location for the water-monitoring plan. The monitoring plan there is the same as in the current MRP.

### **Findings:**

Hydrologic Resource Information in the reformatted MRP is sufficient to meet the requirements of the Coal Mining Rules.

## **MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

### **Analysis:**

Information in this section is the same as the old MRP, both sections refer to missing material.

#### **Archeological Site Maps**[Sheila Mo26]

There were no changes to the content of the map in the newly formatted MRP (4/06; Confidential Binder).

#### **Cultural Resource Maps**

There were no changes to the content of the map in the newly formatted MRP (4/06; Confidential Binder).

**Vegetation Reference Area Maps**[Sheila Mo27]

There were no changes to Plate 9 in the newly formatted MRP (4/06; Confidential Binder).

**Findings:**

Information provided in the plan meets the Environmental - Maps, Plans, and Cross Section Resource Information requirements of the regulations.



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## OPERATION PLAN

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# OPERATION PLAN

## AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

### Analysis:

As described in the MRP Sec. R645-301-420, the DAQE-005-00 allowed for a 16.5-acre stockpile storage area. The January 5, 2000 Air Quality Approval Order (DAQE-005-00) has subsequently been replaced by DAQE AN113007-04, issued December 2004, allowing a 5,500,000 Ton annual throughput. A copy of the DAQE AN113007-04 Order is included in Appendix B.

Section R645-301-423.200 refers to Appendix B for the fugitive dust control plan. The only dust control plan noted in Appendix B is the Air Quality Order described above, which relies upon the application of moisture to stockpiles and open disturbed areas as well as a limited haul road length and vehicle speed to control fugitive dust. The fugitive dust control must be applied when monitoring indicates greater than 20% opacity. Monitoring is the responsibility of the Permittee.

Specific measures to be taken in accordance with R645-301-526.220 *et seq* to reduce wind blown deposition of coal fines is the subject of a Division Order written in December 2004 (Task 2182)

The MRP indicates that wind fences are used to control of fugitive dust near pond B (R645-301-423.200, item #15). The MRP indicates that vacuuming will be used to clear undisturbed soils of accumulations of coal fines (Sec. R645-301-432.200, p. 4-10 and R645-301-212, p. 2-4). Vacuuming has been found to be very disruptive to undisturbed soils and is in itself a disturbance. The Permittee is encouraged closely monitor the wind blown coal fine deposition on adjacent undisturbed soils and use moisture on the stockpile(s) to reduce fugitive dust as well as water sprays or chemical treatment on areas used by mobile equipment and haul roads (condition #10) as required by the January 5, 2000 Approval Order (DAQE-005-00) General Condition #15. This ongoing discussion is the subject of a Division Order issued December 2004.

Primary roads have been identified on Plate 1.

**Findings:**

The information provided meets the minimum air quality requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

**PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES**[Sheila Mo29]

Regulatory Reference: 30 CFR 784.17; R645-301-411.

**Analysis:**

There were no changes to the content of the Protection of Public Parks and Historic Places information in the newly formatted MRP (4/06).

**Findings**

Information provided in the plan meets the Operations - Protection of Public Parks and Historic Places requirements of the regulations.

**FISH AND WILDLIFE INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

**Analysis:**

There were no changes to the content of the Fish and Wildlife Information in the newly formatted MRP (4/06)..Protection and Enhancement Plan

There were no changes to the content of the Protection and Enhancement Plan in the newly formatted MRP (4/06). However, one of the largest problems that Wildcat faces still faces, is the build up of coal fines off the permit boundary. The Permittee must address this issue in the near future.

**Endangered and Threatened Species**

There were no changes to the content of the Endangered and Threatened Species section in the newly formatted MRP (4/06).

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## OPERATION PLAN

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### Findings:

Information provided in the plan meets the Operations - Fish and Wildlife Information requirements of the regulations.

## TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

### Analysis:

#### Topsoil Removal and Storage

Topsoil was salvaged from 20 acres of the site in **1984** and placed in the topsoil stockpiles (Plates, 1 and 13). Stockpiles were consolidated in 1994 and pile B now contains all of the soil formerly in B, C, and D. Relocated stockpile B was seeded in the fall of 1994 and now contains 285,810 yd<sup>3</sup>. Grab samples were taken from stockpiled soil in 1988 (R645-301-212, p 2-2 and Appendix D). This analytical information provides valuable information on the quality of the pre-existing surface soil. Topsoil has not been salvaged from the ASCA areas shown on Plate 2 (Sec. R645-301-212 p. 2-2).

The topsoil was reseeded in 1989 and 1990 (1989 Correspondence folders, memo from Henry Sauer dated April 25, 1989 and January 23, 1990) using a modified interim mix (memo from Lynn Kunzler dated November 17, 1989).

MRP Sec. R645-301-212, p. 2-3 describes transfer of topsoil piles B, C, and D to the west side of Wildcat for protection against wind blown coal fines (in 1994). The transferred topsoil was collectively designated topsoil stockpile B and placed adjacent to existing topsoil stockpile E. The stockpile was seeded in 1994 with an interim seed mix described on page 2-4. The ground exposed by removal of the stockpiles B, C, D was drill seeded with the mixture described on page 2-4. New topsoil pile B was reseeded in December 2002. Topsoil A was recently reseeded in June 2002 (see inspection reports).

The existing stockpiles are located on the west, south and north perimeters of the disturbed area. The prevailing winds are from west to east. Topsoil piles E and B are upwind of the site. Topsoil Pile A is located southeast of the coal stockpile and may be affected by wind blow coal fines. Plate 13 illustrates the existing topsoil storage piles. It was certified by Dan Guy, a Professional Engineer. Plate 13 indicates that there is a total of 17,000 yd<sup>3</sup> available for reclamation.

## OPERATION PLAN

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Coal fines or fugitive dust have accumulated to depths greater than three inches on adjacent, undisturbed soils within the permit area (Patrick Collins report March 2003 included with submittal AM03A). These coal fines may be from any one of the six existing stockpiles on site that contain coal from Genwal and West Ridge Mines. The plan indicates in Sec. R645-301-212, p 2-4 and in Sec. R645-301-423.200 that coal fines will be vacuumed if deemed necessary. Vacuuming has been found to be very disruptive to undisturbed soils and is in itself a disturbance. The Permittee is encouraged to closely monitor the wind blown coal fine deposition and use moisture on the stockpile(s) to reduce fugitive dust as required by the January 5, 2000 Approval Order (DAQE-005-00) General Condition #15. This topic is under review by Division Order written December 2004.

### Topsoil Substitutes and Supplements

Stipulation UMC 817.22-(1)-(HS) of the 1989 Technical Analysis required the Permittee to establish test plots to determine the suitability of the fill as substitute topsoil. The Permittee established four plots in 1989 for this purpose (Section 3, R645-301-224).

Revegetation test plots A, B, C, D, established in 1989 on fill slopes, are located on Plate 1, see deficiency written under R645-301-121.200. The information in the files and the MRP appendices D and N reveals the following:

- Spoil samples from the four plots were analyzed by Utah State University Plant & Water Analysis Lab in December 1988, analyses were received by the Division on February 15, 1989 (Incoming File).
- Spoil plots were ripped to a depth of six inches and 1 Ton/acre alfalfa hay was incorporated to the same depth (MRP Appendix D), this tilling and mulching with straw was confirmed by Division Inspection Reports dated November 2, 1989 and December 19, 1989.
- Spoil plots may have been left rough with pitting (MRP, Appendix D) and may have been fertilized with 40 lbs K2O; 60 lbs P2O5; and 60 lbs N (as Urea: ½ in Fall of 1989 and ½ in Spring of 1990 (MRP, Appendix D).
- Spoil plots were hand broadcast with a **modified** interim seed mix (December 19, 1989b Inspection Report). The approved modification was to delete Needle and Thread Grass and all shrub species and to include *Elymus cinereus* Basin Wildrye (3 lbs/acre) and *Agropyron trachycaulum* Slender wheatgrass (2.5 lbs/ac) (Lynn Kunzler, Memo to file dated November 17, 1989).
- The MRP describes in Appendix D a monitoring program for the spoil plots. The plots were to have been monitored in years 1, 2, 3, 5, 9, and 10.
- Spoil plots were surveyed in 1991, two years after seeding, by Patrick Collins (App. N). No further monitoring was conducted. One more quantitative evaluation of the fill slope test plots A, B, C, D will be conducted in the summer of 2006 (MRP, p.2-8).

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**OPERATION PLAN**

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The 1991 survey report (1991, Appendix N) shows that all the plots were weedy and many of the seeded species were not present. Plot B showed the most positive result with 30% of its 52% cover attributed to the seeded grasses. Plot B is near the substation, east of the railroad tracks. The Division biologist (Jerriann Ernsten) briefly examined Plot B during a field visit (January 30, 2003) and the plot is still dominated by grasses (species unidentified) and without shrubs. Photographs taken of the test plots on June 23, 2005 are in the photo database.

1988 samples of the spoils that were taken in six-inch depth increments shed some light on the success of spoil plot B vegetation. Spoil plot B soils are loam in texture with pH values between 8.0 and 8.3, Electrical Conductivity values between 3.3 mmhos/cm decreasing to 0.9 mmhos/cm in the profile; and Sodium Adsorption Ratio (SAR) values from 1.3 falling to 0.4 within the profile. Spoil Plot B had the most desirable characteristics of the spoils sampled. Although spoil Plot A soils were also low in SAR, they were more sandy and would have had less water holding ability in the drought years after the seeding, described by Mr. Collins 1991 survey. Spoil Plots D and E both are loam texture, but have EC values increasing down the profile to a high value of 4.0 mmhos/cm for spoil D and 3.0 for spoil E. The SAR values for spoil plots D & E are correspondingly high (from 2.8 to 6.6 for spoil D and from 1.6 to 8.5 for spoil E).

In addition to the spoil plots, there were four topsoil testplots were established on the new topsoil pile B (adjacent to pile E, see Sec. R645-301-2224 , p. 2-8), as part of the commitment stated on page 2-8 of the original plan to implement test plots if the spoil plots were unsuccessful. These test plots were seeded in the fall of 1994 and evaluated once in 1997 and will not be revisited. Mr. Glasson provided the Division with a copy of the 1997 evaluation of these test plots (incoming folder 3/11/03). The test plots were eliminated in 2000, when the surface of the new topsoil pile B was reseeded. The treatments on these test plots were

- irrigation vs. no irrigation;
- incorporation of 3 to 4 tons alfalfa hay vs 1 ton alfalfa hay;
- 1-ton alfalfa hay incorporated and 1.5 tons straw anchored with netting vs. 1-ton alfalfa hay incorporated and 1.5 tons oat or barley straw anchored with mesh and staples.

According to Patrick Collins in his July 1997 Evaluation of the Test Plots (Division 2003 Incoming Record 0001), conducted 2 ½ years after seeding:

- Excluding forbs which were all weedy, the percent cover ranged from 38.75% to 43.33%.
- Seeded *Kochia prostrata* (prostrate kochia) and *Agropyron cristatum* (Fairway crested wheatgrass) accounted for most of the cover.
- Mulch incorporation at 3 – 4 Tons/ac greatly increased establishment of *Kochia prostrata* (a woody shrub) at the expense of grasses. This trend was also noted at lower levels of mulch incorporation.
- Irrigated plots favored grasses.

## OPERATION PLAN

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- Fairway crested wheatgrass (an introduced species) did much better than the native grasses and although it did not exclude the natives, may have created competition limiting their establishment.

The plan provides some some parameters to be tested in future plots (page 2-8): native and local seed, different fertilizing techniques (including no fertilizer) and different seedbed preparation. The 1997 Collins analysis suggests that Fairway Crested wheat seed should be eliminated from the interim seed mix in order to encourage greater diversity in the establishment of grasses.

The Division concurs with Mr. Collins recommendation of removing Fairway crested wheatgrass from the seed mix. The Division would also suggest the following techniques be evaluated in future seeding activity: cover the seed by raking to increase shrub germination, employ wood-fiber hydromulch, eliminate fertilizer, reduce mulch to 1 T/ac, and change the timing of seeding to late summer.

Rather than go to the extreme of pursuing additional area for disturbance (R645-301-224 p 2-8), the Division has recommended to Andalex (based upon the soil survey conducted in March 2003, by Mr. Jim Nyenhuis), that any future expansion plans should describe a salvage depth of twenty-four inches, with another thirty inches of subsoil to be salvaged and stockpiled separately for use as substitute topsoil during final reclamation.

### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

### Analysis:

There were no changes to the content of the Operation - Vegetation information in the newly formatted MRP (4/06).

### Findings:

Information provided in the plan meets the Operations - Vegetation requirements of the regulations.

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## OPERATION PLAN

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### SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

#### Analysis:

Coal processing waste was used (along with subsoils) to create a foundation for the stockpiles (R645-301-212 p 2-2; R645-301-512.230 p 5-7).

#### Refuse Piles

Refuse or bony is stored on the west side of the railroad tracks (Plate 1). This refuse was sampled once in 1994 as described in Sec. R645-301-711.100. The leachate analysis results are found in the 1994 Annual Reports.

Acid/Toxic analysis of the refuse material was conducted in 2004. The results of this testing are found in Appendix D and is discussed in the Operations Hydrology section of this TA under Acid/Toxic forming materials.

Approximately 44,500 yd<sup>3</sup> of refuse are in the refuse pile (Plate 1 and R645-301-512.230 p 5-8). And 10,000 yd<sup>3</sup> of refuse material has been used as foundation fill for stockpile areas as noted in R645-301-512.230 p 5-8.

#### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

### HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

#### Analysis:

##### General

The sedimentation and control plan, including impoundments, diversions and water monitoring plans are discussed in the Engineering Chapter 5 under Section R645-301-512.240. R645-301-731 refers to R645-301-511.100 for General Hydrologic Operation Information. Ground Groundwater Monitoring Plan

Section 731.211 refers to Section 711.100 as the location for the ground-water monitoring plan. Information in 711.100 indicates that drilling on the site confirmed that no ground water is present, so ground water is not monitored for this operation. Surface-Water Monitoring Plan

Sections R645-301-731.220 and 731.221 refer to 512.240 as the location for the surface-water monitoring plan. The monitoring plan is in 512.240 in the section Water Monitoring Plans. Tables V-10 and V-11 summarize the baseline and operational monitoring plans. Locations are shown on Plate 15.

#### **Acid- and Toxic-Forming Materials and Underground Development Waste**

Acid and Toxic Forming Materials sampling information is found on p. 7-5 in Sec. R645-301-711.100. The analysis of the 1994 leachate from coal and refuse by Commercial Testing and Engineering Co. is found in the 1994 Annual Report.

The analysis of the refuse material (soil) by Utah State University Soil Plant and Water Analysis Laboratory is included as Attachment 2 of Appendix J (Probable Hydrologic Consequences). These analyses indicate that there is 0.53% sulfur and 1.02% sulfur in the coal and boney, respectively. Since the analyses do not indicate the calcium carbonate content of the material, nor do they provide an indication of the percent pyrite, they cannot provide an estimation of the acid forming potential of the material. However, the pH of the material is reported as 7.6 and 7.4, and the boron content falls within 0.5 to 1.3 mg/L. Selenium was not analyzed.

Two samples of the refuse material (soil) taken in 2004 were sent to Brigham Young University Soil and Plant Analysis Laboratory is located in Appendix D. These samples indicate there is adequate carbonate in the material to neutralize the potential acidity. The samples also report high values for selenium, this fact should be noted in the selection of vegetation.

Section 645-301-512.230 p. 5-7 discusses the use of coal mine waste as substitute fill during operations with separate handling and disposal of the coal mine waste under four feet of subsoil.



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## OPERATION PLAN

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### **Transfer of Wells**

No transfer of wells has taken place, nor is any transfer anticipated (page 7-27).

### **Discharges Into An Underground Mine**

N/A

### **Gravity Discharges From Underground Mines**

N/A

### **Water-Quality Standards And Effluent Limitations**

In Section R645-301-751 the Permittee commits that discharges or water from areas disturbed by coal processing and reclamation operations will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the USEPA set forth in 40 CFR Part 434.

A copy of the NPDES permit is in Appendix K. It became effective on May 1, 2003 and expires April 30, 2008.

### **Diversions: General**

Section R645-301-742.310 refers to 512.240 as the location for general information on diversions. .

### **Diversions: Perennial and Intermittent Streams**

All drainages within and adjacent to the permit area are ephemeral. There are no perennial or intermittent streams.

### **Diversions: Miscellaneous Flows**

Under the definitions of the Coal Mining Rules, all flows at the Wildcat Loadout are miscellaneous. All impoundments and diversions are discussed in 512.240.

### **Stream Buffer Zones**

As there are no perennial or intermittent streams, this section of the Coal Mining Rules does not apply to then Wildcat Loadout.

### **Sediment Control Measures**

There are six sedimentation ponds and seven ASCAs at the Wildcat Loadout.

### **Siltation Structures: General**

**ASCAs are discussed in Section 512.240.**

Design and operation of the sedimentation ponds are discussed on pages 5-9 through 5-27.

### **Siltation Structures: Other Treatment Facilities**

There are no Other Treatment Facilities at the Wildcat Loadout.

### **Siltation Structures: Exemptions**

There are no exemptions to the requirements for Siltation Structures in the Wildcat Loadout MRP.

### **Discharge Structures**

Control of discharge from impoundments, sedimentation ponds, culverts, and diversions is discussed in section 512.240. Sediment Pond Outlet Protection is shown on Figure V-2A.

### **Impoundments**

There is a 2-celled pond called the Permanent Impoundment. Design and construction are described on Plate 18 and in 512.240.

### **Ponds, Impoundments, Banks, Dams, and Embankments**

There are no coal processing banks, dams, or embankments. Design, construction, and maintenance of embankments that were built as part of roads and sedimentation ponds are described in sections discussing those structures.

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**OPERATION PLAN**

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**Findings:**

The information provided does not meet the minimum hydrologic information requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.



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RECLAMATION PLAN

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## RECLAMATION PLAN

### GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

#### Analysis:

Reclamation techniques are being investigated at the site. A topsoil test plot study was installed on Topsoil Pile B in 1994 to address the questions of which reclamation treatments provide the most favorable condition for seed germination and plant growth on topsoil. In 1997 by Patrick Collins of Mt. Nebo Scientific evaluated the topsoil test plots (see discussion under Operation Plan Topsoil and Subsoil). A second quantitative evaluation will occur in 2006 (pg 2-7)

#### Findings:

The information provided meets the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine. The Division expects to continue refining the reclamation plan for this site in cooperation with the Permittee.

### BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

#### Analysis:

##### General

Final reclamation contours and cross section locations are shown on Plate 9. Plate 10, Reclamation profiles indicates that the reclaimed site will gently slope from west to east at a grade between 20h:1v (cross-section C) to 26h:1v (cross-section D).

Phase I reclamation will involve grading 74,000 yd<sup>3</sup> of material (Section R645-301-240, p 2-16 and Tables II-1 Mass Balance Summary). Ponds B and E will be removed and Ponds A,

## RECLAMATION PLAN

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C, E and F will remain until Phase 2 of the reclamation (p 2-16 and 2-19). Section R645-301-512.230 p. 5-7 describes the burial of coal mine waste underneath four feet of subsoil.

The fill will be compacted (Sec. R645-301-p. 2-5), but the last few lifts will be left loose for a depth of four feet to eliminate the need for ripping (Sec. R645-301-240 p. 2-19).

Phase II is the removal of ponds A, C, D, and F and removal of the fence surrounding the permit area. The upper and lower cell of the permanent impoundment shown on Plate 9 will remain. The outslopes of these impoundments are vegetated.

Table II-1 and Table II-1A provide cut fill information. These tables were derived from Plate 14 cross-sections.

### Findings:

The information provided meets the backfilling and grading requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

### Analysis:

#### Redistribution

The reclamation plan is described in Sections R645-301-240 (p. 2-13) and R645-301-542.400. Reclamation costs are provided in Appendix B.

R645-301-243 indicates soil nutrients will be applied as needed. Section R645-301-240 p. 2-21 indicates topsoil will be sampled for fertility and amended as recommended by the regulatory authority. Unless deficiencies are extreme, the Division discourages the use of fertilizer, and has noted that nitrogen fertilization encourages weedy species in The Practical Guide to Reclamation in Utah, DOGM, 2000, available on the web at <http://www.ogm.utah.gov/mining/default.htm>.

Topsoil will be replaced to a depth of six inches over a 61 acre area (p. 2-5, R645-301-242 p 2-25), except that topsoil will not be replaced on:

- Alternate Sediment Control Areas (ASCA, where topsoil was not removed). Plate 2 illustrates the ASCA's.

## RECLAMATION PLAN

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- Embankments of permanent impoundments (shown on plates 1 and 9 on the west side of the railroad tracks)

Topsoil placement will occur in the Fall (pg 2-20). Topsoil will be replaced using dump trucks and graders (pg 2-20). As mentioned in Sec. R645-301-240 p. 2-19, a loose application of fill should eliminate the requirement for ripping (scarification) of the graded fill prior to topsoil placement. The topsoiled surface will be roughened with gouging. Seed will be applied to all 61 disturbed acres, as shown on Plate 9 (Section R645-301-240, p. 2-22).

### Findings:

The information provided meets the minimum topsoil and subsoil reclamation requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

### Analysis:

#### Hydrologic Reclamation Plan

The former MRP included UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams, and Embankments: the reformatted MRP has the same information under 512.240 Impoundments. Information on Post-mining Hydrology, including reclamation hydrology and reclamation water monitoring, is in section 512.240.

### Findings:

Hydrologic Reclamation Information is adequate to meet the requirements of the Coal Mining Rules.

## PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES<sub>[Sheila Mo57]</sub>

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

**Analysis:**

There were no changes to the content of the Protection of Fish, Wildlife, and Related Environmental Values information in the newly formatted MRP (4/06).

**Findings:**

Information provided in the plan meets the Reclamation - Protection of Fish, Wildlife, and Related Environmental Values requirements of the regulations.

**REVEGETATION**

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

**Analysis:**

**Revegetation: General Requirements**

There were no changes to the content of the Revegetation information in the newly formatted MRP (4/06).

**Findings:**

Information provided in the plan meets the Revegetation requirements of the regulations.

**STABILIZATION OF SURFACE AREAS**

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

**Analysis:**

Reclaimed areas will be gouged as described in Sec. R645-301-240 p. 2-21, hydroseeded and hydromulched.

All seeded areas (illustrated on Plate 9) will be treated with hydromulch (1 Ton/ac) and tackifier to stabilize the regraded soil (Sec.R645-301-240, pg 2-22).

The embankments of permanent impoundments may be stabilized with riprap (Sec. R645-301-242.320).



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**RECLAMATION PLAN**

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Repair of erosion is described in Sec. R645-301-212, p 2-6.

**Findings:**

The information provided meets the minimum reclamation surface area stabilization requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine.

**BONDING AND INSURANCE REQUIREMENTS**

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

**Analysis:**

**Form of Bond**

The Permittee met the minimum requirements of this section of the R645-Rules. The Permittee provided the bond in the form prescribed by the Division.

**Determination of Bond Amount**

The Permittee met the minimum requirements of this section of the R645 Rules.

The Division calculated the reclamation cost of the Wildcat Loadout. Those calculations are in Appendix B of the MRP. The calculations are based on the R645-301-830 rules, the OSM reclamation handbook, and the Division's reclamation cost technical directive.

**Terms and Conditions for Liability Insurance**

The Permittee met the minimum requirements of this section of the R645 Rules. A copy of the insurance certificate is in Appendix B of the MRP.

**Findings:**

The Permittee has met the minimum requirements of this section of the regulations.